

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
Great Lakes	Open Lake	Great Lakes Fishery Commission	Historical Fisheries Data Sets	Annual Commerical Fish Production from 1867 to 2000, Gill Net Catches of Lake Trout at variety of locations from 1929 to 1937	Great Lakes	1867 to 2000	Aug-02	http://www.glf.org/pubs_out/historical.asp
		Environment Canada	Biodiversity Portrait of the St. Lawrence River	Consolidation of scientific information and data on the physical and biotic characteristics of the region from the past 3 years.	St. Lawrence River, Canada	2000-2003		http://www.qc.ec.gc.ca/faune/biodiv/en/table_contents.html
		NOAA - GLERL	Long-Term Trends in Benthic Populations	Continuing project that monitors trends in benthic macroinvertebrate populations in southern Lake Michigan. Samples collected at 40 sites in the southern basin.	Southern Lake Michigan basin	1980-1981, 1986-1987, 1992-1993, 1998-1999, 2000, 2002?	2002?	Tom Nelepa thomas.nalepa@noaa.gov http://www.glerl.noaa.gov/res/Task_rpts/cmnalepa13-2.html
		US Dept of the Interior - Fish and Wildlife Service National Fisheries Research Center; University of Michigan - Center for Great Lakes and Aquatic Sciences	Periphyton Accumulation at Remote Reefs and Shoals in Lake Superior	Distribution of detritus and periphyton on the lakebed in east-central Lake Superior	East-Central Lake Superior	1985 (August)	N/A	http://jgler.org/1991/num3/17_3_412-418.pdf
		Lake Huron Technical Committee	Lake Huron GIS Project	Although the primary objective of this project is to integrate data from across the basin into a common database to provide an inventory of basin-wide aquatic resources, many new layers and tools are also being developed to ensure that the decision support system is a powerful tool for analysis of whole-system responses to management alternatives.	Lake Huron	1999 - Present	Constantly Updated	http://www.glf.org/LakeHuronGis/
		Natural Resources Research Institute, University of Minnesota (funded by U.S. EPA and MN DNR)	Lake Superior Decision Support System Data Sets	Collection of GIS applications and databases, including forest types and land cover	Lake Superior basin		18-Jan-02	http://oden.nrri.umn.edu/lsgis/database.s.htm

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
G r e a t L a k e s	Open Lake	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		EPA - GLNPO	Biological Open Water Surveillance Program of the Laurentian Great Lakes	Dominant phytoplankton species by biovolume (lakewide averages)	Lake Huron, Lake Ontario, Lake Michigan, Lake Erie, Lake Superior	1998 (spring and summer) Other Years May Be Avail.	N/A	http://www.epa.gov/glnpo/monitoring/plankton/zooannrpt98/REPORT.pdf
		EPA - GLNPO and SUNY at Brockport	Epilimnetic Phytoplankton and Zooplankton Biomass and Species Composition (Lake Michigan)	Common phytoplankton species occurrence in Lake Michigan	Lake Michigan	1983-1992	N/A	http://www.epa.gov/glnpo/monitoring/plankton/mich83-92/index.html
		EPA - GLNPO and SUNY at Brockport	Epilimnetic Phytoplankton and Zooplankton Biomass and Species Composition (Lake Ontario)	Common phytoplankton species occurrence in Lake Ontario	Lake Ontario	1986-1992	N/A	http://www.epa.gov/glnpo/monitoring/plankton/ont86-92/index.html
		NOAA - GLERL	Temporal and Spatial Distributions of Microcystis blooms in Saginaw Bay and Lake Erie	Water samples were collected on Saginaw Bay during Microcystis bloom for ground truth in the development of a satellite derived Microcystis map product.	Saginaw Bay, Lake Huron	1999	N/A	George Leshkevich george.leshkevich@noaa.gov http://www.glerl.noaa.gov/res/Task_reports/cmleshk03-3.html

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
Great Lakes	Open Lake	The Nature Conservancy: Freshwater Initiative	Indicators of Hydrologic Alterations	a software package that allows hydrologists and ecologists to statistically characterize environmental regimes and to analyze changes in those characteristics over time. It is most commonly used to evaluate streamflow data, but the method and software will work on any type of daily hydrologic data, including river stages, ground water levels, or lake levels.	applicable anywhere	1997 - present	N/A	http://www.freshwaters.org/eswm/iha/
		NOAA - Fisheries	Commercial Catch (COMCAT)	Daily fishing records for US waters of the Great Lakes.	USA	1971-present	continuous	http://www.st.nmfs.gov/st1/commercial/
		USGS - Great Lakes Science Center	Research Vessel Catch (RVCAT)	Contains trawl and gillnet data including total catch, length frequency, individual fish (length, weight, sex, age, prey, etc.). This database contains a log of vessel activities during routine assessments on the waters of the five Great Lakes. The purpose of the database is to provide information on research and monitoring of fish population dynamics and to supply information to managers and scientists.	All Great Lakes	1954-present	continuous	Scott Nelson scott_nelson@usgs.gov (734) 214-7243
		USGS - Great Lakes Science Center (with the help of OMNR, MDEQ, FWS and CORA)	Coded Wire Tag	Contains the history of captured coded wire tag lake trout.	Lake Huron	1985-present	continuous	Scott Nelson scott_nelson@usgs.gov (734) 214-7243
		USGS - Great Lakes Science Center	Lake Erie Ecological Investigations	Contains data from a study done on Lake Erie tributaries demonstrating the linkage between sediment contaminants and fish health, fish communities and invertebrate communities.	Lake Erie	1980s - 1990s	N/A	http://www.glsc.usgs.gov/LEEI.htm Scott Nelson scott_nelson@usgs.gov (734) 214-7243
		USGS - Great Lakes Science Center	Contaminant Chemistry	Contains fish tissue archive and organic pesticide and PCB results since the early '70s. Also contains some contaminant sediment data.	All Great Lakes	1970s - Present	?	Scott Nelson scott_nelson@usgs.gov (734) 214-7243

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
Great Lakes	Open Lake	USGS - Great Lakes Science Center	Interagency Cisco Database	Small mesh gillnet captures of Cisco (chubs) from Lake Superior, contributed by MN DNR, WI DNR, MI DNR, Kewanaw Bay & Redcliff tribes & CORA)	All Great Lakes	?	?	Scott Nelson scott_nelson@usgs.gov (734) 214-7243
		USGS - Great Lakes Science Center	Interagency Predator Prey Database	Lake Superior returns of several predator species contributed by all agencies in Cisco database plus OMNR	Lake Superior	?	?	Scott Nelson scott_nelson@usgs.gov (734) 214-7243
		USGS - Great Lakes Science Center	Card Image Data	Various collections of benthic invertebrates, Hexagenia, macrophytes, etc.	All Great Lakes	1960s - 1980s	?	Scott Nelson scott_nelson@usgs.gov (734) 214-7243
		USGS - Great Lakes Science Center	Great Lakes Aquatic Gap Analysis Project	To evaluate the biological diversity of aquatic species and their habitats, and to identify gaps in the distribution and protection of these species and their habitats within the Great Lakes basin.	All Great Lakes	2003-future	continuous	http://www.glsc.usgs.gov/GLGAP.htm
		OH DNR	Sediment cores	Core samples were taken from the Ohio waters.	Lake Erie	1970s - 1980s	?	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		OH DNR	Lake bottom sonar readings	Sonar readings of the bottom of Lake Erie	Lake Erie	1990s	?	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		OH DNR	Lake Trawling	?	Lake Erie	?	?	Jeff Tyson jeff.tyson@dnr.state.oh.us
		USGS - Great Lakes Science Center	Past to Present Fisheries Data	Catalogue of fish populations. Soon to be online.	All Great Lakes	1960 - present	?	Scott Nelson scott_nelson@usgs.gov (734) 214-7243
		US FWS, OMNR, USGS, WI DNR, OH DNR, MI DNR, NY DEC & several universities	Lake Sturgeon	Provides information and a network of links to lake sturgeon (Acipenser fulvescens) research conducted by a number of U.S. and Canadian agencies and universities in the Great Lakes region of North America	All Great Lakes	?	?	http://midwest.fws.gov/sturgeon/index.html
		US FWS & E.C.	Commercial Fisheries Database	To develop a GIS database and software for use in research and management of Great Lakes fisheries resources. And, develop a common Great Lakes GIS database, develop pilot projects, and train Great Lakes DNR researchers and managers how to use the system so they can utilize it in their daily work.	All Great Lakes	1980-1998	?	?

CLASSIFICATION	AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
Great Lakes		US FWS	Lake Trout Population Assessment	Lake Huron	1995-present	continuous	http://midwest.fws.gov/alpena/laketrout.htm
		Environment Canada & U.S. EPA	Lakewide Management Plans (LaMP)	All Great Lakes	1987-present	continuous	http://www.epa.gov/glnpo/gl2000/lamps/
		Environment Canada	Environmental Effects Monitoring	Canada	1992-2002	N/A	http://www.ecologeris.com/details/ont/
		U.S. EPA - GLNPO	Results from the Great Lakes National Program Office's Biological Open Water Surveillance Program of the Laurentian Great Lakes 1998	All Great Lakes	1938-1998	2000	http://www.epa.gov/glnpo/monitoring/plankton/zooannrpt98/REPORT.pdf

CLASSIFICATION	AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
Great Lakes		USGS	NAWQA Program - Lake Erie - Lake St. Clair Basin Study Unit	Lake Erie and Lake St. Clair	1994-present	1998	http://oh.water.usgs.gov/nawqa/
		Ohio Sea Grant	New Research Suggests Zebra Mussels have Minor Effect on Lake Erie's Microbenthic Community	Lake Erie	2000	N/A	Robert Heath rheath@kent.edu Jill Jentes jentes.1@osu.edu http://www.sg.ohio-state.edu/publications/releases/Aug-4-00.html
		The Nature Conservancy: Freshwater Initiative	Freshwater GIS database	National	N/A	N/A	Jonathan Higgins, The Nature Conservancy, Chicago Office
		The Nature Conservancy: Freshwater Initiative	Indicators of Hydrologic Alterations	applicable anywhere	1997 - present	N/A	http://www.freshwaters.org/eswm/iha/
		U.S. EPA - GLNPO	Benthic Invertebrate Biomonitoring	All Great Lakes	1997-present	N/A	http://www.epa.gov/glnpo/monitoring/indicators/benthic97/paper.htm
	Open Lake						

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
Great Lakes	Connecting Waterways and the St. Lawrence River	IJC	International Lake Ontario - St. Lawrence River Study (LOSL)	To consider, develop, evaluate and recommend updates and changes to the 1956 criteria for Lake Ontario St. Lawrence River water levels and flow regulation, taking into account how water level fluctuations affect all interests and changing conditions in the system including climate change, all within the terms of the Boundary Waters Treaty.	Lake Ontario & St. Lawrence River	1999-2004	Nov. 2002	http://www.losl.org/about/about-e.html
		GLC	Environmental Monitoring Inventory for the Lake St. Clair Basin	to develop an inventory of monitoring programs in the Lake St. Clair basin. The Lake St. Clair monitoring inventory will provide a much-needed mechanism for information sharing throughout the region.	Lake St. Clair, St. Clair River, Detroit River	2002-present	continuous	http://mapserver.glc.org/website/lkstclair/search.htm#overview
		University of Montreal, Dept of Biology; Environment Canada	Periphyton in the St. Lawrence River: A 20-Year Overview	Comparison of common algal species at three sites in the St. Lawrence River	St. Lawrence River, Quebec, Canada	1973, 1982, 1994-1995	N/A	http://jqlr.org/1998/num1/24_1_105-117.pdf
		USGS	NAWQA Program - Lake Erie - Lake St. Clair Basin Study Unit	Biological data includes: algae data, fish community data, fish tissue quality data, freshwater mussel data, habitat data, intensive ecological assessment, macroinvertebrate community data, and streambed sediment quality data.	Lake Erie and Lake St. Clair	1994-present	1998	http://oh.water.usgs.gov/nawqa/
		Environment Canada	Biodiversity Portrait of the St. Lawrence River	Consolidation of scientific information and data on the physical and biotic characteristics of the region from the past 3 years. Classification of wetlands types, percentage of wetland loss (1945-1978) in 10 km-wide coastal strip	St. Lawrence River, Canada	2000-2003		http://www.gc.ec.gc.ca/faune/biodiv/en/table_contents.html
Shoreline	Nearshore - Baymouth	USGS - Great Lakes Science Center	Lake Erie Near Shore	Contains general ecological data, including larval & juvenile fish, benthic invertebrates, zooplankton, and limnological parameters using three different sampling designs.	Lake Erie	2000-2002	?	Scott Nelson scott_nelson@usgs.gov (734) 214-7243
		USGS - Great Lakes Science Center	Great Lakes Aquatic Gap Analysis Project	To evaluate the biological diversity of aquatic species and their habitats, and to identify gaps in the distribution and protection of these species and their habitats within the Great Lakes basin.	All Great Lakes	2003-future	continuous	http://www.glsc.usgs.gov/GLGAP.htm
		Environment Canada	Great Lakes Environmental Sensitivity Atlas and Database	Developed to prepare and respond to spills of oil and other hazardous materials in the Great Lakes. Presents geomorphological, biological, cultural, human-use information. Ranks shoreline habitats to indicate their relative sensitivities to oil impact.	U.S. and Canada Great Lakes shorelines	1991-1994		http://www.on.ec.gc.ca/emergency/enviro-sensitivity-atlas/intro-e.html

CLASSIFICATION	AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
S h o r e l i n e	Nearshore - Baymouth	NOAA - GLERL	Temporal and Spatial Distributions of Microcystis blooms in Saginaw Bay and Lake Erie	Saginaw Bay, Lake Huron	1999	N/A	George Leshkevich george.leshkevich@noaa.gov
		NOAA	Environmental Sensitivity Index	United States coastal areas	1995-future	continuous	http://response.restoration.noaa.gov/esi/esiintro.html
		MSU, Dept of Fisheries and Wildlife	Increased Abundance and Depth of Submersed Macrophytes in Response to Decreased Turbidity	Saginaw Bay, Lake Huron	1991-1993	N/A	http://jglr.org/1995/num4/21_4_476-488.pdf
		SUNY Brockport, Dept of Biological Sciences	Occurrence of Macrophytes in the Near Shore Waters	Lake Ontario	1986 (June to October)	N/A	http://jglr.org/1988/num4/14_4_405-410.pdf
		Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		The Nature Conservancy: Freshwater Initiative	Indicators of Hydrologic Alterations	a software package that allows hydrologists and ecologists to statistically characterize environmental regimes and to analyze changes in those characteristics over time. It is most commonly used to evaluate streamflow data, but the method and software will work on any type of daily hydrologic data, including river stages, ground water levels, or lake levels.	applicable anywhere	1997 - present	N/A http://www.freshwaters.org/eswm/iha/

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
		USGS - Great Lakes Science Center	Great Lakes Aquatic Gap Analysis Project	To evaluate the biological diversity of aquatic species and their habitats, and to identify gaps in the distribution and protection of these species and their habitats within the Great Lakes basin.	All Great Lakes	2003-future	continuous	http://www.glsc.usgs.gov/GLGAP.htm

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
S h o r e l i n e	Nearshore - Baymouth	US FWS - Marquette Biological Station	Sealine Patrol Program	?	?	?	?	Jearl Klar
		OH DNR - Division of Geological Survey	Spatial Patterns Emphasize the Importance of Coastal Zones as Nursery Areas for Larval Walleye in Western Lake Erie	?	Western Lake Erie	? - 2000	N/A	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		Environment Canada - U.S. Army Corps of Engineers	Lake Erie and Ontario Shoreline Data	To provide more accurate shoreline maps with greater detail in terms of ownership and economic value.	Lake Erie & Lake Ontario	? - 2000	N/A	http://www.ciscons.com/LGLES/Presentations/buffalo%20workshop/
		Water Systems Analysts; University of Western Ontario - Dept of Biology; Ontario Ministry of Environment & Energy	Factors Influencing Changes in Nearshore Benthic Community	Nearshore benthic communities surveyed at 5 and 20 m, on the Canadian side of Lake Ontario	Canadian side of Lake Ontario	1981, 1991	N/A	http://jqlr.org/2000/num3/26_3_272-286.pdf
		Environment Canada - U.S. Army Corps of Engineers	Lake Erie and Ontario Shoreline Data	To provide more accurate shoreline maps with greater detail in terms of ownership and economic value.	Lake Erie & Lake Ontario	? - 2000	N/A	http://www.ciscons.com/LGLES/Presentations/buffalo%20workshop/
		Ohio DNR	Nearshore Habitat Dynamics	Tracking substrate changes	Lake Erie & Lake Michigan	1999-2000	2000	Scudder Mackey sdmackey@glph.org Jonathan Fuller karen.harold@dnr.state.oh.us
	Islands	Environment Canada	Great Lakes Environmental Sensitivity Atlas and Database	Developed to prepare and respond to spills of oil and other hazardous materials in the Great Lakes. Presents geomorphological, biological, cultural, human-use information. Ranks shoreline habitats to indicate their relative sensitivities to oil impact.	U.S. and Canada Great Lakes shorelines	1991-1994		http://www.on.ec.gc.ca/emergency/enviro-sensitivity-atlas/intro-e.html
		Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		Great Lakes Basin Ecosystem Team	Barrier Island Beaches	GIS Decision Support System for Lake Michigan expanded to basin for Island habitat	Lake Michigan	?	?	Chris Costigleon & Leslie Teawinkle http://greatlakes.fws.gov/gli.htm

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
		Northeast Midwest Institute	U.S. - Canada Great Lakes Islands Project	To serve as 1) a catalyst to start a basin-wide "conversation" about the islands and conservation of biological diversity and 2) a central base or focal point for activities, data, and information about the islands.	U.S. and Canadian Islands in the Great Lakes	1995-?	2003	Karen E. Vigmostad; kvigmostad@nemw.org; http://www.nemw.org/islands/execsummary2003.pdf
Shoreline	Bluff	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		Environment Canada	Great Lakes Environmental Sensitivity Atlas and Database	Developed to prepare and respond to spills of oil and other hazardous materials in the Great Lakes. Presents geomorphological, biological, cultural, human-use information. Ranks shoreline habitats to indicate their relative sensitivities to oil impact.	U.S. and Canada Great Lakes shorelines	1991-1994		http://www.on.ec.gc.ca/emergency/environmental-sensitivity-atlas/intro-e.html
		IJC	International Lake Ontario - St. Lawrence River Study (LOSL)	To consider, develop, evaluate and recommend updates and changes to the 1956 criteria for Lake Ontario St. Lawrence River water levels and flow regulation, taking into account how water level fluctuations affect all interests and changing conditions in the system including climate change, all within the terms of the Boundary Waters Treaty.	Lake Ontario & St. Lawrence River	1999-2004	Nov. 2002	http://www.losl.org/about/about-e.html
		Environment Canada - Water Issues Division	Canadian Great Lakes Shoreline Classification	This database was developed to classify and map the Great Lakes-St. Lawrence shoreline using a three-tiered classification. The classification scheme was designed to emphasize features that could be related to the resistance of the shoreline to erosion and the proportion of the shoreline covered by shore	Canadian Great Lakes Shoreline	1992	Jun-05	http://www.on.ec.gc.ca/water/greatlakes/metadata/great-lakes-shoreline-class/intro.html
		MI Coastal Management Program	High Risk Erosion Areas	?	?	?	?	http://www.michigan.gov/deg/0,1607,7-135-3313_3677_3700-10860--,00.html

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
S h o r e l i n e	Bluff	OH DNR - Division of Geological Survey & USGS	Lake Erie Coastal Erosion Study	To identify the factors controlling the temporal and spatial variation in erosion rates along the Ohio shoreline to improve the predictive models of future shoreline recession. Improved measurement of historic shoreline recession and detailed observations of the geologic and physical factors controlling shoreline recession have been identified as critical needs. Geophysical investigations in the lake basin address transport pathways and identify potentially valuable sand and gravel resources which may be utilized in future shoreline-protection activities. A comprehensive digital database will aid in coastal-management decision making.	Lake Erie	1990s-present	?	http://www.ohiodnr.com/geosurvey/lakeerie/ces.htm Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		U.S. Army Corps of Engineers	Recession Rate Analysis (RRA) System	The RRA is a data query, mapping and visualization system that allows basic level analysis of a range of coastal zone data for the shorelines of the United States Great Lakes and St. Lawrence River. The system was initially developed for USACE Detroit District in 1997 as a data analysis tool for work on the Lake Michigan Potential Damages Study. It has since been modified through additional activities in the LMPDS as well as a series of data collection activities that have been conducted in the Lower Great Lakes Erosion Study for USACE Buffalo District.	All Great Lakes	1997-present	continuous	http://www.cjscons.com/LGLES/Downloads/RRA.doc
		U.S. Army Corps of Engineers - Buffalo District	Lower Great Lakes Erosion Study (LGLES)	The goal of this study is to develop tools for the assessment of local and regional impacts associated with coastal projects. These tools will be applied to assist a wide range of USACE activities on the St. Lawrence River, Lake Ontario, the Niagara River and Lake Erie	Lake Ontario & Lake Erie	1997-present	continuous	http://www.cjscons.com/LGLES/index.html
		U.S. Army Corps of Engineers - Detroit District	Lake Michigan Potential Damages Study (LMPDS)	An extensive and long-term assessment of potential shoreline damages over the next 50 years due to fluctuating lake levels along the Lake Michigan shoreline. The study, started in October 1996, is dedicated to meeting several of the recommendations that came out of the 1986-1993 International Joint Commission (IJC) Great Lakes Levels Reference Study.	Lake Michigan	1995-present	continuous	http://www.lre.usace.army.mil/index.cfm?chn_id=1134
		Environment Canada - U.S. Army Corps of Engineers	Lake Erie and Ontario Shoreline Data	To provide more accurate shoreline maps with greater detail in terms of ownership and economic value.	Lake Erie & Lake Ontario	? - 2000	N/A	http://www.cjscons.com/LGLES/Presentations/buffalo%20workshop/

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
S h o r e l i n e s	Sandy Beach	Environment Canada	Great Lakes Environmental Sensitivity Atlas and Database	Developed to prepare and respond to spills of oil and other hazardous materials in the Great Lakes. Presents geomorphological, biological, cultural, human-use information. Ranks shoreline habitats to indicate their relative sensitivities to oil impact.	U.S. and Canada Great Lakes shorelines	1991-1994		http://www.on.ec.gc.ca/emergency/enviro-sensitivity-atlas/intro-e.html
		Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		US EPA - Great Lakes Program (Chicago)	Great Lakes Ecoregional Program	?	?	?	?	Keith Harrison
		U.S. Army Corps of Engineers	Recession Rate Analysis (RRA) System	The RRA is a data query, mapping and visualization system that allows basic level analysis of a range of coastal zone data for the shorelines of the United States Great Lakes and St. Lawrence River. The system was initially developed for USACE Detroit District in 1997 as a data analysis tool for work on the Lake Michigan Potential Damages Study. It has since been modified through additional activities in the LMPDS as well as a series of data collection activities that have been conducted in the Lower Great Lakes Erosion Study for USACE Buffalo District.	All Great Lakes	1997-present	continuous	http://www.ciscons.com/LGLES/Downloads/RRA.doc
		U.S. Army Corps of Engineers - Buffalo District	Lower Great Lakes Erosion Study (LGLES)	The goal of this study is to develop tools for the assessment of local and regional impacts associated with coastal projects. These tools will be applied to assist a wide range of USACE activities on the St. Lawrence River, Lake Ontario, the Niagara River and Lake Erie	Lake Ontario & Lake Erie	1997-present	continuous	http://www.ciscons.com/LGLES/index.html

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
S h o r e l i n e s	Sandy Beach	U.S. Army Corps of Engineers - Detroit District	Lake Michigan Potential Damages Study (LMPDS)	An extensive and long-term assessment of potential shoreline damages over the next 50 years due to fluctuating lake levels along the Lake Michigan shoreline. The study, started in October 1996, is dedicated to meeting several of the recommendations that came out of the 1986-1993 International Joint Commission (IJC) Great Lakes Levels Reference Study.	Lake Michigan	1995-present	continuous	http://www.lre.usace.army.mil/index.cfm?chn_id=1134
	Dunes	The Nature Conservancy Canada	Threats of on & offshore sand dunes	?	?	?	?	Wasył Bakowsky
	Cobble Beach	Environment Canada	Great Lakes Environmental Sensitivity Atlas and Database	Developed to prepare and respond to spills of oil and other hazardous materials in the Great Lakes. Presents geomorphological, biological, cultural, human-use information. Ranks shoreline habitats to indicate their relative sensitivities to oil impact.	U.S. and Canada Great Lakes shorelines	1991-1994		http://www.on.ec.gc.ca/emergency/enviro-sensitivity-atlas/intro-e.html
		Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
S h o r e l i n e s	Coastal Wetlands	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		Environment Canada	Great Lakes Environmental Sensitivity Atlas and Database	Developed to prepare and respond to spills of oil and other hazardous materials in the Great Lakes. Presents geomorphological, biological, cultural, human-use information. Ranks shoreline habitats to indicate their relative sensitivities to oil impact.	U.S. and Canada Great Lakes shorelines	1991-1994		http://www.on.ec.gc.ca/emergency/environment-sensitivity-atlas/intro-e.html
		U.S. EPA	Aquatic Wetlands Species at Risk	Species data collected through state-agency based Natural Heritage Network and The Nature Conservancy are mapped out on a nationwide map	United States	1996		http://www.epa.gov/iwi/1999april/iii8_usmap.html
		Water Systems Analysts; University of Western Ontario - Dept of Biology; Ontario Ministry of Environment & Energy	Factors Influencing Changes in Nearshore Benthic Community	Nearshore benthic communities surveyed at 5 and 20 m, on the Canadian side of Lake Ontario	Canadian side of Lake Ontario	1981, 1991	N/A	http://jqlr.org/2000/num3/26_3_272-286.pdf
		NOAA - GLERL	Long-Term Trends in Benthic Populations	Continuing project that monitors trends in benthic macroinvertebrate populations in southern Lake Michigan. Samples collected at 40 sites in the southern basin.	Southern Lake Michigan basin	1980-1981, 1986-1987, 1992-1993, 1998-1999, 2000, 2002?	2002?	Tom Nelepa thomas.nalepa@noaa.gov
								http://www.glerl.noaa.gov/res/Task_reports/cmnalepa13-2.html
		EPA - GLNPO and SUNY at Brockport	Changes in Phytoplankton Size-Class Abundance and Species Composition	Phytoplankton and zooplankton collected at off-shore sites of Lake Michigan	Lake Michigan	1983-1992	N/A	http://jqlr.org/1998/num3/24_3_637-657.pdf
		Michigan Natural Features Inventory	Associations between Great Lakes Nearshore Communities and Habitats Influenced by Varied Levels of Shoreline Development	Compares different shorelines to assess the impacts on nearshore habitats.	Lake Erie & Lake Michigan	N/A	N/A	Stephanie Carman carmans@michigan.gov

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
S h o r e l i n e s	Coastal Wetlands	Michigan Natural Features Inventory - Ecology Program	GIS database	Vegetation of Michigan circa 1800; a detailed interpretation of public land survey data on 1:24,000 topography plus ancillary data; mmu ~ 40 acres; for use in status and trend assessment	Michigan	1815-1840	1995	http://web4.msue.msu.edu/mnfi/data/veg1800.cfm
		Michigan Natural Features Inventory	Watershed Element Data	This is a listing of all known occurrences of threatened, endangered, and special concern species and high quality natural communities occurring within a watershed. The species and community information is derived from the MNFI database. The watersheds are based on the 14 digit Hydraulic Unit Codes (HUC).	Michigan	NA	continuous	http://web4.msue.msu.edu/mnfi/data/index.cfm
		Michigan Natural Features Inventory	Vegetation of the Great Lakes Coastal Marshes and Wetlands of MN, WI, OH, PA, and NY.	Inventory of plants in the Great Lakes coastal wetlands and marshes.	MN, WI, OH, PA & NY	1997	N/A	http://web4.msue.msu.edu/mnfi/pub/publications.cfm
		Michigan Natural Features Inventory	Great Lakes Coastal Wetlands: An Overview of Controlling Abiotic Factors, Regional Distribution, and Species Composition	Overview of controlling abiotic factors in coastal wetlands.	Great Lakes Coasts	1997	N/A	http://web4.msue.msu.edu/mnfi/pub/publications.cfm
		Michigan Natural Features Inventory	Michigan's Great Lakes Coastal Wetlands, Part 1: An Overview of Abiotic Variability	Report to EPA Great Lakes National Program	Michigan	1996	N/A	http://web4.msue.msu.edu/mnfi/pub/publications.cfm
		Bird Studies Canada, EC Canadian Wildlife Service, U.S. EPA's Great Lakes National Program Office	Marsh Monitoring Program	Monitoring populations of marsh birds (53 species) and amphibians (13 species) over time on a variety of spatial scales through survey efforts of volunteers	Great Lakes states and Ontario	1995-present		http://www.bsc-eoc.org/mmpreport.html
		U.S. Fish & Wildlife Service	National Wetland Inventory	The National Wetlands Inventory (NWI) of the U.S. Fish & Wildlife Service produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. U.S. Congress, and the private sector. The NWIC has mapped 90 percent of the lower 48 states, and 34 percent of Alaska. About 44 percent of the lower 48 states, and 13 percent of Alaska are digitized.	USA	1982-present	2000	http://wetlands.fws.gov/index.html
		USGS - Great Lakes Science Center	Effects of Water-Level Fluctuations on Wetlands of the Great Lakes	Water-level fluctuations in the Great Lakes are of concern for a number of reasons, including the potential effects they may have on coastal developments, shipping, recreation, hydropower, and natural resources. Most previous attempts to address the effects of fluctuations on wetland resources used aerial photograph interpretation as the major assessment tool. As a result, conclusions were sometimes drawn suggesting that high water levels destroy wetland vegetation.	All Great Lakes	1988-2000	N/A	http://www.glsr.usgs.gov/science/wetlands/WilcoxWeb.htm

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
S h o r e l i n e s	Costal Wetlands	USGS - Great Lakes Science Center	Great Lakes Aquatic Gap Analysis Project	To evaluate the biological diversity of aquatic species and their habitats, and to identify gaps in the distribution and protection of these species and their habitats within the Great Lakes basin.	All Great Lakes	2003-future	continuous	http://www.glsc.usgs.gov/GLGAP.htm
		Environment Canada Great Lakes Commission	Lake Ontario St. Lawrence Great Lakes Coastal Wetlands Consortium	? To design an implementable, long-term program to monitor Great Lakes coastal wetlands. This is being accomplished through the development of indicators to assess the condition of Great Lakes coastal wetlands.	? All Great Lakes	? 2000-present	? continuous	Rob Read http://www.glc.org/wetlands/
		Ontario MNR The University of Florida	Protected Wetlands APRIS Online - Aquatic, Wetland and Invasive Plant Information Retrieval System	GIS Layer The database includes annotated citations for more than 60,000 research articles, books and reports about plant ecology, physiology, utilization and control. Items in many languages dating back to the 18th century are in this inclusive database.	? USA	? early 1980s - present	? 	Wasył Bakowsky http://plants.ifas.ufl.edu/
		OH DNR - Division of Geological Survey	Wetlands of Modern and Ancestral Lakes Erie and St. Clair, Michigan, Ohio, Indiana, Pennsylvania, and New York, USA and Ontario, Canada.	?	Lakes Erie and St. Clair, Michigan, Ohio, Indiana, Pennsylvania, and New York, USA and Ontario, Canada	? - 1994	N/A	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		OH DNR - Division of Geological Survey	Spatial Patterns Emphasize the Importance of Coastal Zones as Nursery Areas for Larval Walleye in Western Lake Erie	?	Western Lake Erie	? - 2000	N/A	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		Environment Canada - U.S. Army Corps of Engineers	Lake Erie and Ontario Shoreline Data	To provide more accurate shoreline maps with greater detail in terms of ownership and economic value.	Lake Erie & Lake Ontario	? - 2000	N/A	http://www.cjscons.com/LGLES/Presentations/buffalo%20workshop/
		USGS - Great Lakes Science Center	Effects of Lake Ontario Water-Level Regulation on Wetlands	The goals of this study are to assist in development of a new, less environmentally damaging regulation plan for Lake Ontario by 1) collecting data on wetland plant community responses to past water level fluctuations and 2) developing models to predict future vegetation response to proposed regulation plans.	Lake Ontario	2000-present	continuous	http://www.glsc.usgs.gov/science/wetlands/WilcoxWeb.htm
		University of Michigan Biological Station	Correlations between Development of Coastal Marsh Fish Communities in Les Cheneaux in the Eastern Upper Peninsula of Michigan	Looks at the impacts of human development on fish communities	Northern Lake Huron	N/A	N/A	Paul Webb pwebb@umich.edu

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
T r i b u t a r i e s	Tributaries	MDNR	Selected species and habitat information	Provides links to scientific information about species and ecosystems	Michigan	N/A	N/A	http://www.michigan.gov/dnr/0,1607,7-153-10370_12145---00.html
		USGS-UMESC	Long Term Resource Monitoring Program	The mission of the Long Term Resource Monitoring Program is to provide decision makers with the information needed to maintain the Upper Mississippi River System as a viable multiple-use large river ecosystem. The long-term goals of the Program are to understand the system, determine resource trends and impacts, develop management alternatives, manage information, and develop useful products.	The Five Upper Mississippi River System states (Illinois, Iowa, Minnesota, Missouri, and Wisconsin).	1987-present	annually	http://www.umesc.usgs.gov/ltrmp.html
		USGS - Great Lakes Science Center	Great Lakes Aquatic Gap Analysis Project	To evaluate the biological diversity of aquatic species and their habitats, and to identify gaps in the distribution and protection of these species and their habitats within the Great Lakes basin.	All Great Lakes	2003-future	continuous	http://www.glsc.usgs.gov/GLGAP.htm
		Ontario MNR	Aquatic Habitat Inventory - Stream Assessment Manual	?	Ontario	? - 1982	N/A	Sharon Dobush sharon.dobush@mnr.gov.on.ca 705-825-3415
		The Nature Conservancy: Freshwater Initiative	Indicators of Hydrologic Alterations	a software package that allows hydrologists and ecologists to statistically characterize environmental regimes and to analyze changes in those characteristics over time. It is most commonly used to evaluate streamflow data, but the method and software will work on any type of daily hydrologic data, including river stages, ground water levels, or lake levels.	applicable anywhere	1997 - present	N/A	http://www.freshwaters.org/eswm/iha/
		The Nature Conservancy: Freshwater Initiative	A Spatial Assessment of Hydrologic Alteration Within a River Network	This paper illustrates a technique for spatially mapping the degree of hydroic alteration for river reaches at and between stream gauge sites	Study site = Colorado River but results can be applicable to any river	N/A	1998	http://www.freshwaters.org/docs/hydroalt.pdf

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
T r i b u t a r i e s	Riparian Zone	MDNR	Selected species and habitat information	Provides links to scientific information about species and ecosystems	Michigan	N/A	N/A	http://www.michigan.gov/dnr/0,1607,7-153-10370_12145---,00.html
		USGS-UMESC	Long Term Resource Monitoring Program	The mission of the Long Term Resource Monitoring Program is to provide decision makers with the information needed to maintain the Upper Mississippi River System as a viable multiple-use large river ecosystem. The long-term goals of the Program are to understand the system, determine resource trends and impacts, develop management alternatives, manage information, and develop useful products.	The Five Upper Mississippi River System states (Illinois, Iowa, Minnesota, Missouri, and Wisconsin).	1987-present	annually	http://www.umesc.usgs.gov/ltrmp.html
		Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
L o w l a n d	Swales	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		U.S. EPA	Aquatic Wetlands Species at Risk	Species data collected through state-agency based Natural Heritage Network and The Nature Conservancy are mapped out on a nationwide map	United States	1996		http://www.epa.gov/iwi/1999april/iii8_us_map.html
		Ontario MNR - Science and Information Branch (The Nature Conservancy of Canada, The Natural Heritage League, and The Nature Conservancy)	Natural Heritage Information Center - Natural Areas Database	The Natural Areas Database contains locational and tabular information on certain natural areas in Ontario. The information in the Natural Areas Databases includes: UTM coordinates, vegetation information, significant species, description of the landform, and references to literature.	Ontario	1983 -2003	Mar-03	http://www.mnr.gov.on.ca/MNR/nhic/
		Environment Canada	Great Lakes Environmental Sensitivity Atlas and Database	Developed to prepare and respond to spills of oil and other hazardous materials in the Great Lakes. Presents geomorphological, biological, cultural, human-use information. Ranks shoreline habitats to indicate their relative sensitivities to oil impact.	U.S. and Canada Great Lakes shorelines	1991-1994		http://www.on.ec.gc.ca/emergency/enviro-sensitivity-atlas/intro-e.html
		Environment Canada	Biodiversity Portrait of the St. Lawrence River	Consolidation of scientific information and data on the physical and biotic characteristics of the region from the past 3 years. Classification of wetlands types, percentage of wetland loss (1945-1978) in 10 km-wide coastal strip	St. Lawrence River, Canada	2000-2003		http://www.qc.ec.gc.ca/faune/biodiv/en/table_contents.html
		Michigan Natural Features Inventory - Ecology Program	GIS database	Vegetation of Michigan circa 1800; a detailed interpretation of public land survey data on 1:24,000 topography plus ancillary data; mmu ~ 40 acres; for use in status and trend assessment	Michigan	1815-1840	1995	http://web4.msue.msu.edu/mnfi/data/veg1800.cfm

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
L o w l a n d	Swales	Michigan Natural Features Inventory	Watershed Element Data	This is a listing of all known occurrences of threatened, endangered, and special concern species and high quality natural communities occurring within a watershed. The species and community information is derived from the MNFI database. The watersheds are based on the 14 digit Hydraulic Unit Codes (HUC).	Michigan	NA	continuous	http://web4.msue.msu.edu/mnfi/data/index.cfm
		Michigan Natural Features Inventory	Vegetation of the Great Lakes Coastal Marshes and Wetlands of MN, WI, OH, PA, and NY.	Inventory of plants in the Great Lakes coastal wetlands and marshes.	MN, WI, OH, PA & NY	1997	N/A	http://web4.msue.msu.edu/mnfi/pub/publications.cfm
		U.S. Fish & Wildlife Service	National Wetland Inventory	The National Wetlands Inventory (NWI) of the U.S. Fish & Wildlife Service produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. U.S. Congress, and the private sector. The NWIC has mapped 90 percent of the lower 48 states, and 34 percent of Alaska. About 44 percent of the lower 48 states, and 13 percent of Alaska are digitized.	USA	1982-present	2000	http://wetlands.fws.gov/index.html
		Ontario MNR	Protected Wetlands	GIS Layer	?	?	?	Wasył Bakowsky
		USGS - Great Lakes Science Center	Great Lakes Aquatic Gap Analysis Project	To evaluate the biological diversity of aquatic species and their habitats, and to identify gaps in the distribution and protection of these species and their habitats within the Great Lakes basin.	All Great Lakes	2003-future	continuous	http://www.glsc.usgs.gov/GLGAP.htm
		OH DNR - Division of Geological Survey	Wetlands of Modern and Ancestral Lakes Erie and St. Clair, Michigan, Ohio, Indiana, Pennsylvania, and New York, USA and Ontario.	?	Lakes Erie and St. Clair, Michigan, Ohio, Indiana, Pennsylvania, and New York, USA and Ontario, Canada	? - 1994	N/A	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
	Prairie	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI,	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
L o w l a n d	Prairie	Michigan Natural Features Inventory - Ecology Program	GIS database	Vegetation of Michigan circa 1800; a detailed interpretation of public land survey data on 1:24,000 topography plus ancillary data; mmu ~ 40 acres; for use in status and trend assessment	Michigan	1815-1840	1995	http://web4.msue.msu.edu/mnfi/data/veg1800.cfm
		Michigan Natural Features Inventory	Watershed Element Data	This is a listing of all known occurrences of threatened, endangered, and special concern species and high quality natural communities occurring within a watershed. The species and community information is derived from the MNFI database. The watersheds are based on the 14 digit Hydraulic Unit Codes (HUC).	Michigan	NA	continuous	http://web4.msue.msu.edu/mnfi/data/index.cfm
		Ontario Ministry of Natural Resources	Prairie polygons	GIS Layers	?	?	?	Wasył Bakowsky
	Oak Savannah	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		Michigan Natural Features Inventory - Ecology Program	GIS database	Vegetation of Michigan circa 1800; a detailed interpretation of public land survey data on 1:24,000 topography plus ancillary data; mmu ~ 40 acres; for use in status and trend assessment	Michigan	1815-1840	1995	http://web4.msue.msu.edu/mnfi/data/veg1800.cfm
		OMNR	Oak Savannah polygons	GIS layer	?	?	?	Wasył Bakowsky
		Natural Heritage Program	Oak Savannah Recovery Plan	?	?	?	?	?
		US EPA - Great Lakes National Program Office	Oak Savannah Restoration	?	?	?	?	Karen Rodriguez

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
L o w l a n d	Wetlands	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		U.S. EPA	Aquatic Wetlands Species at Risk	Species data collected through state-agency based Natural Heritage Network and The Nature Conservancy are mapped out on a nationwide map	United States	1996		http://www.epa.gov/iwi/19999sep/iv8_usmap.html
		Ontario MNR - Science and Information Branch (The Nature Conservancy of Canada, The Natural Heritage League, and The Nature Conservancy)	Natural Heritage Information Center - Natural Areas Database	The Natural Areas Database contains locational and tabular information on certain natural areas in Ontario. The information in the Natural Areas Databases includes: UTM coordinates, vegetation information, significant species, description of the landform, and references to literature.	Ontario	1983 -2003	Mar-03	http://www.mnr.gov.on.ca/MNR/nhic/
		Michigan Natural Features Inventory - Ecology Program	GIS database	Vegetation of Michigan circa 1800; a detailed interpretation of public land survey data on 1:24,000 topography plus ancillary data; mmu ~ 40 acres; for use in status and trend assessment	Michigan	1815-1840	1995	http://web4.msue.msu.edu/mnfi/data/veg1800.cfm

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
Lowland	Wetlands	Michigan Natural Features Inventory	Watershed Element Data	This is a listing of all known occurrences of threatened, endangered, and special concern species and high quality natural communities occurring within a watershed. The species and community information is derived from the MNFI database. The watersheds are based on the 14 digit Hydraulic Unit Codes (HUC).	Michigan	NA	continuous	http://web4.msue.msu.edu/mnfi/data/index.cfm
		Environment Canada	Biodiversity Portrait of the St. Lawrence River	Consolidation of scientific information and data on the physical and biotic characteristics of the region from the past 3 years. Classification of wetlands types, percentage of wetland loss (1945-1978) in 10 km-wide coastal strip	St. Lawrence River, Canada	2000-2003		http://www.gc.ec.gc.ca/faune/biodiv/en/table_contents.html
		Bird Studies Canada, EC Canadian Wildlife Service, U.S. EPA's Great Lakes National Program Office	Marsh Monitoring Program	Monitoring populations of marsh birds (53 species) and amphibians (13 species) over time on a variety of spatial scales through survey efforts of volunteers	Great Lakes states and Ontario	1995-present		http://www.bsc-eoc.org/mmpreport.html
		U.S. Fish & Wildlife Service	National Wetland Inventory	The National Wetlands Inventory (NWI) of the U.S. Fish & Wildlife Service produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. U.S. Congress, and the private sector. The NWIC has mapped 90 percent of the lower 48 states, and 34 percent of Alaska. About 44 percent of the lower 48 states, and 13 percent of Alaska are digitized.	USA	1982-present	2000	http://wetlands.fws.gov/index.html
		USGS - Great Lakes Science Center	Effects of Water-Level Fluctuations on Wetlands of the Great Lakes	Water-level fluctuations in the Great Lakes are of concern for a number of reasons, including the potential effects they may have on coastal developments, shipping, recreation, hydropower, and natural resources. Most previous attempts to address the effects of fluctuations on wetland resources used aerial photograph interpretation as the major assessment tool. As a result, conclusions were sometimes drawn suggesting that high water levels destroy wetland vegetation.	All Great Lakes	1988-2000	N/A	http://www.glsc.usgs.gov/science/wetlands/WilcoxWeb.htm
		Ontario Ministry of Natural Resources	Protected Wetlands	GIS Layer	?	?	?	Wasył Bakowsky
		OH DNR - Division of Geological Survey	Wetlands of Modern and Ancestral Lakes Erie and St. Clair, Michigan, Ohio, Indiana, Pennsylvania, and New York, USA and Ontario.	?	Lakes Erie and St. Clair, Michigan, Ohio, Indiana, Pennsylvania, and New York, USA and Ontario, Canada	? - 1994	N/A	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		Michigan Natural Features Inventory	Vegetative Response in Michigan's Great Lakes Marshes to Great Lakes Water-Level Fluctuations	Effects of water-level fluctuations on marshes.	Michigan	1997	N/A	http://web4.msue.msu.edu/mnfi/pub/publications.cfm

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
	Ponds/Inland Lakes	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp
		Ontario MNR - Science and Information Branch (The Nature Conservancy of Canada, The Natural Heritage League, and The Nature Conservancy)	Natural Heritage Information Center - Natural Areas Database	The Natural Areas Database contains locational and tabular information on certain natural areas in Ontario. The information in the Natural Areas Databases includes: UTM coordinates, vegetation information, significant species, description of the landform, and references to literature.	Ontario	1983 -2003	Mar-03	http://www.mnr.gov.on.ca/MNR/nhic/

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
L o w l a n d	Ponds/Inland Lakes	The Nature Conservancy: Freshwater Initiative	Indicators of Hydrologic Alterations	a software package that allows hydrologists and ecologists to statistically characterize environmental regimes and to analyze changes in those characteristics over time. It is most commonly used to evaluate streamflow data, but the method and software will work on any type of daily hydrologic data, including river stages, ground water levels, or lake levels.	applicable anywhere	1997 - present	N/A	http://www.freshwaters.org/eswm/iha/
		USGS - Great Lakes Science Center	Great Lakes Aquatic Gap Analysis Project	To evaluate the biological diversity of aquatic species and their habitats, and to identify gaps in the distribution and protection of these species and their habitats within the Great Lakes basin.	All Great Lakes	2003-future	continuous	http://www.glsc.usgs.gov/GLGAP.htm
		The Nature Conservancy: Freshwater Initiative	Indicators of Hydrologic Alterations	a software package that allows hydrologists and ecologists to statistically characterize environmental regimes and to analyze changes in those characteristics over time. It is most commonly used to evaluate streamflow data, but the method and software will work on any type of daily hydrologic data, including river stages, ground water levels, or lake levels.	applicable anywhere	1997 - present	N/A	http://www.freshwaters.org/eswm/iha/
U p l a n d	Forest	Conservation organizations, federal government, international agencies, and private sector partners (http://www.natureserve.org/aboutUs/partners.jsp)	NatureServe website	Provides scientific information about species and terrestrial ecosystems. Includes description, distribution, status, and trend information on most native and introduced plant and animal species. Also includes classification and descriptions for upland and wetland ecosystems as well vegetation types included in the U.S. National Vegetation Classification. Contains links to methods documentation used by Natural Heritage programs. Specific contacts at NatureServe may provide access to multi-jurisdictional data on locations of rare species throughout the United States. Up to date occurrence data for species, as well as mapped locations of ecosystem, community, and natural areas are available through individual Natural Heritage programs in ON, MN, WI, IL, IN, MI, OH, PA, and NY.	International, National, and State Information	1974-2003	continuous	http://www.natureserve.org/getData/index.jsp

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
Upland	Forest	Ontario MNR - Science and Information Branch (The Nature Conservancy of Canada, The Natural Heritage League, and The Nature Conservancy)	Natural Heritage Information Center - Natural Areas Database	The Natural Areas Database contains locational and tabular information on certain natural areas in Ontario. The information in the Natural Areas Databases includes: UTM coordinates, vegetation information, significant species, description of the landform, and references to literature.	Ontario	1983 -2003	Mar-03	http://www.mnr.gov.on.ca/MNR/nhic/
		Natural Resources Research Institute, University of Minnesota (funded by U.S. EPA and MN DNR)	Lake Superior Decision Support System Data Sets	Collection of GIS applications and databases, including forest types and land cover	Lake Superior basin		18-Jan-02	http://oden.nrrri.umn.edu/lsgis/databases.htm
		Michigan Natural Features Inventory - Ecology Program	GIS database	Vegetation of Michigan circa 1800; a detailed interpretation of public land survey data on 1:24,000 topography plus ancillary data; mmu ~ 40 acres; for use in status and trend assessment	Michigan	1815-1840	1995	http://web4.msue.msu.edu/mnfi/data/veg1800.cfm
		Michigan Natural Features Inventory	Watershed Element Data	This is a listing of all known occurrences of threatened, endangered, and special concern species and high quality natural communities occurring within a watershed. The species and community information is derived from the MNFI database. The watersheds are based on the 14 digit Hydraulic Unit Codes (HUC).	Michigan	NA	continuous	http://web4.msue.msu.edu/mnfi/data/index.cfm
		USDA Forest Service	Fire Effects Information System	This database contains synoptic descriptions, taken from current English-language literature of almost 900 plant species, about 100 animal species, and 16 Kuchler plant communities found on the North American continent. The emphasis of each synopsis is fire and how it affects each species. Background information on taxonomy, distribution, basic biology and ecology of each species is also included.	USA	? - Present	Constantly Updated	http://www.fs.fed.us/database/feis/index.html
		USDA Forest Service	Forest Inventory	This program produces tables and maps from the USDA Forest Service's Forest Inventory and Analysis Data Base (FIADB).	USA	? - Present	continuous	http://fia.fs.fed.us/dbrs_setup.htm
		Ontario Ministry of Natural Resources	Forest Resource Inventory	The Forest Resource Inventory (FRI) is an extensive survey of the forest resources of Ontario. The FRI was designed as a large-scale survey that would allow general characterization of the forest in terms of species, forest conditions and regeneration. It is based on aerial photo interpretation, as well as some field surveys.	Ontario	1946-present	continuous	http://ontariosforests.mnr.gov.on.ca/inventoryoverview.cfm

CLASSIFICATION		AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
A l t e r e d H a b i t a t s	Agriculture	Natural Resources Research Institute, University of Minnesota (funded by U.S. EPA and MN DNR)	Lake Superior Decision Support System Data Sets	Collection of GIS applications and databases, including forest types and land cover	Lake Superior basin		18-Jan-02	http://oden.nri.umn.edu/lsgis/databases.htm
		Environment Canada	Biodiversity Portrait of the St. Lawrence River	Consolidation of scientific information and data on the physical and biotic characteristics of the region from the past 3 years. Agriculture assessments were made using Landsat-TM data.	St. Lawrence River, Canada	2000-2003		http://www.gc.ec.gc.ca/faune/biodiv/en/table_contents.html
		American Farmland Trust	Farming on the Edge: High Quality Farmland in the path of Development	Uses the tool of compelling maps to lay out the threats and gives reasoned solutions-so communities, legislators and individuals can clearly see what needs to be done to protect the country's best farmland.	USA	1980-present	N/A	http://www.farmland.org/farmingontheedge/about.htm
	Urban/Industrial	Environment Canada	Biodiversity Portrait of the St. Lawrence River	Consolidation of scientific information and data on the physical and biotic characteristics of the region from the past 3 years. Urban habitat assessment from satellite imagery.	St. Lawrence River, Canada	2000-2003		http://www.gc.ec.gc.ca/faune/biodiv/en/table_contents.html
		NatureServe	Growth Projection & Prediction of Saginaw Bay Watershed	?	?	?	?	Pat Comer
		NRCS	Natural Resource Inventory (NRI)	NRI is a statistical survey of land use and natural resource conditions and trends on U.S. non-Federal lands. Non-Federal land includes privately owned land, tribal and trust land, and lands controlled by State and local governments. The NRI is conducted by the Natural Resources Conservation Service in cooperation with Iowa State University's Center for Survey Statistics and Methodology. The NRI program serves as the Federal Government's principal source of information on the status, condition, and trends of soil, water, and related resources in the United States.	USA	1997-present	continuous	http://www.nrcs.usda.gov/technical/nri/
		American Farmland Trust	Farming on the Edge: High Quality Farmland in the path of Development	Uses the tool of compelling maps to lay out the threats and gives reasoned solutions-so communities, legislators and individuals can clearly see what needs to be done to protect the country's best farmland.	USA	1980-present	N/A	http://www.farmland.org/farmingontheedge/about.htm
		NatureServe	Growth Projection & Prediction of Saginaw Bay Watershed	?	?	?	?	Pat Comer

CLASSIFICATION	AGENCY OF COLLECTION	DATA SET/ INFORMATION BASE	PURPOSE/ DESCRIPTION	GEOGRAPHICAL DOMAIN	TIME PERIOD	LAST UPDATED	ACCESS TO DATA/INFO (OR KEY CONTACT)
A l t e r e d H a b i t a t s	Hardened/Artificial Shoreline	Environment Canada	Great Lakes Environmental Sensitivity Atlas and Database	Developed to prepare and respond to spills of oil and other hazardous materials in the Great Lakes. Presents geomorphological, biological, cultural, human-use information. Ranks shoreline habitats to indicate their relative sensitivities to oil impact.	U.S. and Canada Great Lakes shorelines	1991-1994	http://www.on.ec.gc.ca/emergency/enviro-sensitivity-atlas/intro-e.html
		Environment Canada	Biodiversity Portrait of the St. Lawrence River	Consolidation of scientific information and data on the physical and biotic characteristics of the region from the past 3 years. Shoreline modifications assessments were made using Landsat-TM data.	St. Lawrence River, Canada	2000-2003	http://www.gc.ec.gc.ca/faune/biodiv/table_contents.html
		Environment Canada	Shorline Armoring	?	?	?	Rob Read
		OH DNR	Shorline Armoring	?	Lake Erie	1997-2000	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		OH DNR	Historic Shoreline Armoring	?	Lake Erie	?	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		American River Heritage Program	Workshop on Armoring, bibliography and data	?	?	?	John Heartache
		OH DNR - Division of Geological Survey	Coastal Response to Breakwater Construction at Geneva State Park, Northeast, Ohio	?	Lake Erie coast	? - 1994	Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		Environment Canada - U.S. Army Corps of Engineers	Lake Erie and Ontario Shoreline Data	To provide more accurate shoreline maps with greater detail in terms of ownership and economic value.	Lake Erie & Lake Ontario	? - 2000	N/A http://www.cjscons.com/LGLES/Presentations/buffalo%20workshop/
		Ontario MNR	An Investigation of the Effects of Fish Habitat Modification in Batchewana Bay, Lake Superior (Projects 95-33 and 94-27)	?	Batchewana Bay, Lake Superior	? - 1996	N/A Sharon Dobush sharon.dobush@mnr.gov.on.ca 705-825-3415
		OH DNR - Division of Geological Survey	Coastal Response to Breakwater Construction at Geneva State Park, Northeast, Ohio	?	Lake Erie coast	? - 1994	N/A Jonathan Fuller jonathan.fuller@dnr.state.oh.us
		Michigan Natural Features Inventory	Associations between Great Lakes Nearshore Communities and Habitats Influenced by Varied Levels of Shoreline Development	Compares different shorelines to assess the impacts on nearshore habitats.	Lake Erie & Lake Michigan	N/A	N/A Stephanie Carman carmans@michigan.gov